

**For discussion  
on 4 February 2005**

**Legislative Council Panel on  
Information Technology and Broadcasting**

**2004 Surveys on IT Usage and Penetration  
in the Household and Business Sectors**

**Purpose**

This paper briefs Members on the results of the surveys on IT usage and penetration in the household and business sectors in Hong Kong.

**Background**

2. The Government has conducted annual surveys since 2000 to assess the usage and penetration of IT in the community and business sectors. The statistics have been useful references in the formulation of strategy and initiatives in promoting IT development and adoption in Hong Kong.

3. The Census and Statistics Department conducted the surveys during May to August 2004. Results of the two surveys were released in December 2004. Background information about the conduct of the two surveys is at Annex A. Summaries of the results are at Annexes B and C. Salient points are set out in paragraphs below.

## Household Survey

4. The Household Survey reveals that personal computers (PC) and Internet connections are increasingly common. The related figures of 2003 and 2004 are compared as follows:

	2003	2004
% of households with personal computer (PC) at home amongst all households in Hong Kong	67.5	71.1
% of households with PC at home connected to Internet amongst all households with PC at home in Hong Kong	88.8	91.3
% of households with PC at home connected to Internet amongst all households in Hong Kong	60.0	64.9

5. With the increased penetration of PC and Internet amongst households, more persons aged 10 and over had used PC and Internet service. The survey showed that the rates of using PC were higher amongst younger persons, better-educated persons and students. The related figures of 2003 and 2004 are compared as follows:

	2003	2004
% of persons aged 10 and over who had used PC in the 12 months before the survey amongst all persons aged 10 and over	56.2	59.5
% of persons aged 10 and over who had used Internet service in the 12 months before the survey amongst all persons aged 10 and over	52.2	56.4

6. Utilization of electronic business services was also high amongst people in Hong Kong. Examples of the electronic business services covered in the Household Survey included the use of:

- Octopus card
- Automatic Teller Machine (ATM)
- e-cash
- Easy Pay System (EPS)
- Payment by Phone Service (PPS)
- online searching for financial information/information on goods and services/information on job vacancies, etc.

The related figures of 2003 and 2004 are compared as follows:

	2003	2004
% of persons aged 15 and over who had used one or more types of electronic business services for personal matters in the 12 months before the survey amongst all persons aged 15 and over	93.6	96.5

7. Regarding the usage of online purchasing services, the related figures of 2003 and 2004 are compared as follows:

	2003	2004
% of persons aged 15 and over who had used one or more types of online purchasing services for personal matters in the 12 months before the survey amongst all persons aged 15 and over	7.0	7.1

8. Use of online Government services was also increasingly common. The related figures of 2003 and 2004 are compared as follows:

	2003	2004
% of persons aged 15 and over who had used online Government services for personal matters in the 12 months before the survey amongst all persons aged 15 and over	24.3	28.5

9. The related figures on information security of 2003 and 2004 are compared as follows:

	2003	2004
% of persons who had digital certificate amongst all persons aged 15 and over having knowledge of using PC	3.4	12.4
% of households with PC at home which had installed anti-virus software amongst all households with PC at home	70.4	77.6
% of households with PC at home which had set password for access to the PC amongst all households with PC at home	31.0	34.4
% of households with PC at home which had been infected by virus in the 12 months before the survey amongst all households with PC at home	18.3	40.0
% of persons aged 10 and over who had heard of computer virus	84.8	87.6
% of persons aged 10 and over who had heard of hacking	79.3	82.3

% of persons aged 10 and over who had set password for access to their computer files related to personal matters in the 12 months before the survey amongst all persons aged 10 and over who had used PC in that 12-month period	25.7	21.0
% of persons aged 10 and over who had encrypted their computer files related to personal matters in the 12 months before the survey amongst all persons aged 10 and over who had used PC in that 12-month period	7.4	6.3

10. The Household Survey reveals that there has been a steady growth in the penetration and usage of PC and Internet in the households. Through continual government support and promotion, it is encouraging to see Hong Kong becoming a digitally inclusive society. Hong Kong is now one of the cities with the highest PC and broadband penetration in the world. There is also a noticeable increase in the use of e-government services by the public. The Government will continue to collaborate with IT bodies and non-government organisations to encourage different sectors of the community to adopt IT.

### **Establishment Survey**

11. According to results of the Establishment Survey, the percentages of establishments using personal computers (PCs) and having Internet connection in 2004, have increased over 2003 as follows:

	2003	2004
% of establishments using PC	54.8	58.4
% of establishments having Internet connection	47.5	50.4

12. Analyzed by size of the establishments, the related figures of 2003 and 2004 are compared as follows:

	2003	2004
% of large establishments using PC	94.2	97.4
% of medium establishments using PC	87.7	83.7
% of small establishments using PC	50.0	54.5
% of large establishments having Internet connection	85.1	89.7
% of medium establishments having Internet connection	78.2	76.2

% of small establishments having Internet connection	43.0	46.4
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13. Among the major sectors, PCs were most popularly used in the financing, insurance, real estate and business services sector (82.3%) and the manufacturing, electricity and gas sector (63.1%). The percentage of establishments with Internet connection was also highest in these two sectors, at 76.9% and 54.1% respectively.

14. In 2004, the number of establishments had a Web page or Web site had a slight increase over the 2003. The related figures of 2003 and 2004 are compared as follows:

	2003	2004
% of establishments having Web page/Web site	13.5	14.8

15. The percentage of establishments had a Web page or Web site by size of establishments in 2004 are summarized as follows:

	2004
% of large establishments having Web page/Web site	67.7
% of medium establishments having Web page/Web site	39.2
% of small establishments having Web page/Web site	10.6

16. All establishments having Web pages/Web sites provided information about the establishments and the products and services offered in their Web pages/Web sites. Only 8.7% of the establishments having Web pages/Web sites used their Web pages/Web sites as channel for online ordering of their products and services.

17. Other figures of electronic business, through electronic means included Internet, Interactive Response System through telephone lines/mobile telecommunications network and designated private network, of 2003 and 2004 are compared as follows:

	2003	2004
% of establishments having ordered or purchased goods, services or information in the 12 months before enumeration	9.6	11.7
% of establishments having received goods, services or information in the 12 months before enumeration *	51.0	53.0

% of establishments having sold goods, services or information in the 12 months before enumeration **	1.1	1.3
% of establishments having delivered goods, services or information in the 12 months before enumeration	13.6	15.3

\* only restricted to those products that could be transmitted through electronic media, such as software packages and songs.

\*\* an establishment was regarded to have sold its goods, services or information through electronic means only if it offered them and accepted orders or purchases that were placed completely through electronic means.

18. The related figures of 2002 and 2003 business receipts# are compared as follows:

	2002	2003
Business receipts from selling goods, services or information through electronic means	\$15.6 billion	\$21.2 billion (increase 35.4%)
% of share in respect of selling through the Internet	65.5	64.6
Above business receipts as a % of total business receipts received	0.29	0.42

# Business receipts' figures of 2002 and 2003 are used for comparison as figures for 2004 are only available after the end of the reference period.

19. The related figures on information security of 2003 and 2004 are compared as follows:

	2003	2004
% of establishments which had suffered from computer attacks in the 12 months before enumeration	29.5	44.6
% of establishments having suffered from computer attack which had suffered from virus infection	96.0	98.5
% of establishments having suffered from computer attack which took various types of actions e.g. Applied patches, used more security technologies, reported to senior management and the Hong Kong Computer Emergency Response Team Coordination Centre and Police etc. after the attack	94.7	95.3
% of establishments with PCs which had adopted security technologies to protect their computer systems and information	85.4	87.0
% of establishments having adopted security technology to protect	93.9	94.9

their computer system and information which had used anti-virus software (top in the list) as security technology		
% of establishments which had digital certificates	14.0	14.8

20. The Establishment Survey revealed a wider adoption of IT within the business sector that:

- PC and Internet usage in the business sector had increased steadily, with fairly high PC and Internet penetration rates among our large and medium establishments;
- Among the major sectors, the high penetration rates in the financing, insurance, real estate and business services sector reflect Hong Kong's competitiveness in its key economic sectors;
- There had been a considerable growth of 35.4% in monetary terms in the business receipts from selling goods, services or information through electronic means from \$15.6 billion in 2002 to \$21.2 billion in 2003; and
- Other e-commerce activities such as ordering/purchase and receipt of goods, services or information through electronic means in the business sector had also maintained a steady growth over the past year.

### **Comparison with Other Economies**

21. Comparisons of IT penetration in Hong Kong with other economies are set out in Annex D for Member's reference. As other economies may not carry out IT surveys as frequently as Hong Kong, we have used the most up-to-date statistics of these economies available for comparison. The statistics obtained from different sources generally show that Hong Kong compares well in the household IT penetration and usage with other advanced economies.

22. On the contrary, our survey findings showed that Hong Kong's business IT penetration and usage are relatively lower than other advanced economies. The Government will continue with its efforts and strive to help the industry, especially the small and medium enterprises, to exploit the full potential and benefits of IT in advancing their business interests. Two sector-specific programmes have been rolled out to

encourage the wider adoption of IT among the travel agents, and the private medical practitioners. The Government will launch similar programmes for more business sectors in future so that the SMEs can derive more benefits through IT adoption. The Government will also actively pursue the next wave of e-government programme with the aim of using IT to provide customer-centric services that promote an efficient and accountable government.

**Office of the Government Chief Information Officer**  
**February 2005**



**Background Information  
on the Household and Establishment IT Surveys**

The Household Survey was based on a sample of households selected in accordance with a scientifically designed sampling scheme to represent the population of Hong Kong. Some 10 000 households had been successfully enumerated in the survey. Within those 10 000 households, some 27 800 persons aged 10 and over were interviewed.

2. The Establishment Survey was based on a sample of some 4 800 establishments covering all industry sectors except the agriculture and fishing sector and the mining and quarrying sector. Specifically, the following industry sectors were covered: manufacturing; electricity and gas; construction; wholesale, retail and import/export trades, restaurants and hotels; transport, storage and communications; financing, insurance, real estate and business services; and community, social and personal services.

3. The establishments were classified according to their employment size as at end-March 2004 as large, medium and small establishments. Large establishments referred to establishments with 100 or more persons engaged for the manufacturing sector, and 50 or more persons engaged for other industry sectors. Small establishments referred to those with less than 10 persons engaged regardless of sector. The others were regarded as medium establishments.

4. Since results of the surveys are subject to both sampling and non-sampling errors, care should be taken in comparing the 2003 and the 2004 figures, as a minor difference might not be statistically significant.

5. More detailed results of the Household Survey and the Establishment Survey are set out in the “Thematic Household Survey Report No. 20: Information Technology Usage and Penetration” and the “Report on 2004 Annual Survey on Information Technology Usage and Penetration in the Business Sector” respectively. The two reports are both in bilingual form and have already been put on sale. Copies have been sent to Members of the Legislative Council Panel on Information Technology and Broadcasting.

## Annex B

### Summary of Survey Results

#### Household Survey on Information Technology Usage and Penetration

<u>Data Item</u>	<u>2003</u>	<u>2004</u>	<u>Change in % Point</u>
<b>Information technology penetration amongst households</b>			
◆ Percentage of households with personal computer (PC) at home amongst all households in Hong Kong	67.5%	71.1%	+3.6%
◆ Percentage of households with PC at home connected to Internet amongst all households with PC at home in Hong Kong	88.8%	91.3%	+2.5%
◆ Percentage of households with PC at home connected to Internet amongst all households in Hong Kong	60.0%	64.9%	+4.9%
<b>Information technology usage amongst household members</b>			
◆ Percentage of persons aged 10 and over who had used PC in the twelve months before the survey amongst all persons aged 10 and over	56.2%	59.5%	+3.3%
◆ Percentage of persons aged 10 and over who had used Internet service in the twelve months before the survey amongst all persons aged 10 and over	52.2%	56.4%	+4.2%
<b>Usage of electronic business services</b>			
◆ Percentage of persons aged 15 and over who had used one or more types of electronic business services for personal matters in the twelve months before the survey amongst all persons aged 15 and over	93.6%	96.5%	+2.9%
<b>Usage of online purchasing services</b>			
◆ Percentage of persons aged 15 and over who had used one or more types of online purchasing services for personal matters in the twelve months before the survey amongst all persons aged 15 and over	7.0%	7.1%	+0.1%
<b>Usage of online Government services</b>			
◆ Percentage of persons aged 15 and over who had used online Government services for personal matters in the twelve months before the survey amongst all persons aged 15 and over	24.3%	28.5%	+4.2%

**Summary of Survey Results**  
**Annual Survey on Information Technology**  
**Usage and Penetration in the Business Sector**

<u>Data Item</u>	<u>2003</u>	<u>2004</u>	<u>Change</u> <u>in %</u> <u>Point</u>
<i>(As a % of all establishments)</i>			
<b>Personal Computer (PC) Usage</b>			
◆ Establishments using personal computer	54.8%	58.4%	+3.6%
<b>Internet Usage</b>			
◆ Establishments having Internet connection	47.5%	50.4%	+2.9%
<b>Web Site Usage</b>			
◆ Establishments having Web page/Web site	13.5%	14.8%	+1.3%
<b>Electronic Business</b>			
◆ Establishments having <i>ordered or purchased</i> goods, services or information through electronic means	9.6%	11.7%	+2.1%
◆ Establishments having <i>received</i> goods, services or information through electronic means	51.0%	53.0%	+2%
◆ Establishments having <i>sold</i> goods, services or information through electronic means	1.1%	1.3%	+0.2%
◆ Establishments having <i>delivered</i> goods, services or information through electronic means	13.6%	15.3%	+1.7%
	<u>2002</u>	<u>2003</u>	
◆ Business receipts from selling goods, services or information through electronic means	\$15.6 billion	\$21.2 billion	+5.6 billion
◆ Above business receipts as a % of total business receipts received	0.29%	0.42%	+0.13%

## Comparison of IT Penetration with Other Economies

### A. Household PC and Internet Penetration

<b>Economy</b>	<b>Period during which survey was conducted</b>	<b>Percentage of households with PC</b>	<b>Percentage of households with PC connected to the Internet</b>
1. Korea	2004	77%	70%
2. Singapore	2003	74%	65%
3. Japan	2002	72%	81%*
4. Hong Kong	2004	71%	65%
5. Australia	2003	66%	53%
6. USA	2001	57%	51%
7. UK	2003	55%	45%

\* Including PCs, cellular phones, PDAs, Internet-capable video games consoles, TVs, etc.

**B. PC and Internet Penetration in Business Sector**

<b>Economy</b>	<b>Period during which survey was conducted</b>	<b>Percentage of firms with PC</b>	<b>Percentage of firms with PC with Internet connection</b>	<b>Percentage of firms with web page or website</b>
1. Denmark	2002	98% (2001)*	91%^	67%^
2. Japan	2003	94%^	83%^	78% <sup>@</sup>
3. Canada	2003	86% (2002)	78%	34%
4. Australia	2002 - 2003	83%	71%	23%
5. Singapore	2003	83%	76%	N.A.
6. UK	2002	66%	59%	29%
7. Hong Kong	2004	58%	50%	15%
<i>PE 5+</i>	-	82%	73%	34%
<i>PE 10+</i>	-	86%	78%	43%
<i>PE 100+</i>	-	97%	93%	74%

^ Establishments with at least 5 employees

\* Establishments with at least 10 employees

@ Establishments with at least 100 employees

Source: from government web sites of different economies